What are the Main Factors for the Subdued Profitability of Significant Banks in the Banking Union, and is the ECB's Supervisory Response Conclusive and Exhaustive?

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IN-DEPTH ANALYSIS

Requested by the ECON committee

Main factors for the subdued profitability of significant banks in the Banking Union

Banking Union Scrutiny

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What are the main factors for the subdued profitability of significant banks in the Banking Union, and is the ECB's supervisory response conclusive and exhaustive?

Abstract

This paper examines how the ECB should respond to the currently low profitability of significant banks in the Banking Union. The subdued profitability appears to be a structural problem caused by overbanking, with too many bank assets chasing too few profitable banking sector opportunities. To address the root problem of overbanking, the ECB should use its existing supervisory powers to require significant banks with unsustainably low profitability to restructure reducing their overall size.

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CONTENTS

LIST OF ABBREVIATIONS

BIS	Bank for International Settlements
ECB	European Central Bank
EU	European Union
FOLF	Failing or Likely To Fail
GDP	Gross Domestic Product
GSIB	Global Systemically Important Bank
IMF	International Monetary Fund
IT	Information Technology
M&A	Mergers and Acquisitions
NIM	Net Interest Margin
NPL	Nonperforming Loans
OECD	Organization for Economic Cooperation and Development
ROA	Return on Assets
ROE	Return on Equity
SREP	Supervisory Review and Evaluation Process
SSM	Single Supervisory Mechanism
UOLU	Unsustainable or Likely To Be Unsustainable

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EXECUTIVE SUMMARY

The profitability of euro area banks has recovered since earlier crisis years, but currently remains at a low level. In the second quarter of 2019, the average return on assets (ROA) of significant institutions, defined as net-of-tax profits divided by total assets, was 0.39%, while the average return on equity (ROE), defined as net-of-tax profits divided by equity, was 6.00%. Recently, ROA and ROE have actually been on a declining path, as average ROA and ROE were 0.45% and 6.88% in the second quarter of 2018, respectively (see ECB, 2019c, p. 10).

These low profitability numbers cannot be attributed to cyclical factors, as the European economy has been performing reasonably well in recent years. Rather, the subdued profitability appears to be a structural problem caused by overbanking, with too many bank assets chasing too few profitable banking sector opportunities. An inadequate level of bank profitability can have negative implications for financial stability, and lead to a misallocation of lending to weak firms. This makes the currently low bank profitability a supervisory concern.

Empirical studies with samples of large European banks find a negative relation between ROA and a bank's total assets, which suggests that banks have grown too large, in line with the overbanking hypothesis. In 2018, euro area GSIBs and non-GSIBs achieved average ROAs of 0.37% and 0.41%, respectively, consistent with the negative relation between ROA and bank size.

In September 2018, the ECB (2018) published a report on the outcome of its thematic review of profitability and business models. The report is mainly agnostic on what strategies banks should follow to increase their profitability, and it advocates a bank-specific supervisory approach as banks attempt to increase their profitability. Among other things, supervisors need to ensure that banks make well-informed risk-taking decisions, implying that efforts to cut costs do not affect essential risk management and controls.

While bank supervision has to be tailored to specific bank circumstances, it appears that currently SSM banks as a group have structurally deficient profitability, which calls for a systematic supervisory approach to help remedy this situation. Empirical research suggests that banks can increase their ROA by reducing their size. Hence, an appropriate supervisory response to large banks with a low ROA is to require these banks to restructure with a view to reducing their overall size. To operationalize such a supervisory approach, the ECB should identify banks with unsustainably low profitability based on accounting data and stock market valuations if available, and then require these banks to downsize. The ECB is authorized to require banks to downsize on the basis of Article 16(2) (e) of the SSM Regulation, which gives the ECB the supervisory power 'to restrict or limit the business, operations or network of institutions or to request the divestment of activities that pose excessive risks to the soundness of an institution'. Such a supervisory approach could also serve as a catalyst to bring about more consolidation with a view to increasing profitability, triggering subsequent restructuring and effective downsizing.

1. INTRODUCTION

The profitability of euro area banks has recovered since earlier crisis years, but currently remains at a low level. In the second quarter of 2019, the average return on assets (ROA), defined as net-of-tax profits divided by total assets, of significant institutions was 0.39%, while the average return on equity (ROE), defined as net-of-tax profits divided by equity, was 6.00%. Recently, ROA and ROE have actually been on a declining path, as average ROA and ROE were 0.45% and 6.88% in the second quarter of 2018, respectively (see European Central Bank (ECB), 2019d, p. 10).

This paper examines the recent profitability experience of Single Supervisory Mechanism (SSM) banks, and the appropriate supervisory response. The low profitability numbers cannot be attributed to cyclical factors, as the European economy has performed reasonably well in recent years. Rather, the low profitability appears to be a structural problem caused by overbanking, with too many bank assets chasing too few profitable banking sector opportunities. An inadequate level of bank profitability can have negative implications for financial stability (Xu, Hu, and Das, 2019), and lead to a misallocation of lending to weak firms (Storz, Koettner, Setzer, and Westphal, 2017). This makes the currently low bank profitability a supervisory concern. To address the root problem of overbanking, the ECB could use its existing supervisory powers to require SSM banks with very low profitability to downsize.

Section 2 reviews empirical studies of the determinants of the profitability of European banks. The relatively low estimated sensitivity of ROA to Gross Domestic Product (GDP) growth suggests that GDP is not likely to grow enough in the foreseeable future for profitability to return to sufficiently high levels. Studies that focus on large European banks find a negative relation between ROA and a bank's total assets, which suggests that banks have grown too big, in line with the overbanking hypothesis.

Section 3 reviews data on the profitability of SSM banks over the 2012-2018 period. There has been an upward trend in the average ROA, arising from increasing ratios of net interest income and non-interest income to assets and a falling ratio of loan loss provisions to assets. On the negative side, SSM banks saw their ratio of non-interest costs to assets rise in the 2012-2018 period. While the overall trend in the average ROA has been positive, bank profitability has not returned to pre-crisis levels. Currently, market expectations of future bank profitability appear to be subdued as well, as reflected by a low average market-to-book value of equity for listed SSM banks of 48.8% in 2018. When making a distinction between global systemically important banks (GSIBs) and non-GSIBs, we find that in 2018 GSIBs operated with a relatively low average ROA and market-to-book value, consistent with the negative relation between profitability and bank size among SSM banks.

Section 4 examines the supervisory approach to the subdued profitability of SSM banks. In September 2018, the ECB (2018) published a report on the outcome of its thematic review of profitability and business models. The report is mainly agnostic on what strategies banks should follow to increase their profitability, and it advocates a bank-specific supervisory approach as banks attempt to increase their profitability. Among other things, supervisors need to ensure that banks make well-informed risk-taking decisions, implying that efforts to cut costs do not affect essential risk management and controls.

While bank supervision has to be tailored to specific bank circumstances, it appears that currently SSM banks as a group have structurally deficient profitability, which calls for a systematic supervisory approach to help remedy this situation. Empirical research suggests that banks can increase their ROA by reducing their size. Hence, an appropriate supervisory response to large banks with low ROA is to require these banks to restructure reducing their overall size. To operationalize such a supervisory approach, the ECB should identify banks with unsustainably low profitability based on accounting data and stock market valuations if available, and then require these banks to downsize. For instance, the ECB could presume that a bank's current size is too large if its market-to-book value is less than, say, 0.5 unless there are strong indications to the contrary. The ECB is authorized to require banks to downsize on the basis of Article 16(2) (e) of the SSM Regulation, which gives the ECB the supervisory power 'to restrict or limit the business, operations or network of institutions or to request the divestment of activities that pose excessive risks to the soundness of an institution'.[1] Such a supervisory approach could also prompt more consolidation with a view to increasing profitability, triggering subsequent restructuring and effective downsizing. Section 5 concludes.

[1] See European Union (2013).

2. PRIOR EMPIRICAL INVESTIGATIONS OF THE PROFITABILITY OF EUROPEAN BANKS

This section reviews several studies of the determinants of the profitability of European banks.[2] In particular, we examine the available evidence on the empirical relation between profitability and bank size for European banks, as the current euro area banking market appears to be characterized by overbanking.

To start, Kok, Móré, and Pancaro (2015) of the ECB find that ROA is negatively related to bank size (technically speaking, the log of assets is used as an index of bank size; log scales make it easy to compare values that cover a large range of values) for a sample of 98 large EU banks during the 1994-2014 period. ROA is further positively related to indices of national bank market concentration, and to a proxy for a bank's focus on retail customers given by the ratio of customer deposits and customer loans to total assets

The International Monetary Fund (IMF, 2018) similarly finds that ROA negatively reflects the log of assets for 109 SSM banks during the 2007-2016 period. In addition, ROA is positively related to the GDP growth rate. Specifically, the estimation implies that a 1 percentage point increase in the GDP growth rate would raise ROA by between 15 and 35 basis points. According to IMF (2018), this effect is too weak for a cyclical economic expansion by itself to return SSM banks to sufficient profitability, which implies that structural changes are necessary to make SSM banks adequately profitable again.

Detragiache, Tressel, and Turk-Ariss (2018) of the IMF examine the profitability of 114 SSM banks over the 2000-2016 period, covering the recent financial cycle. Four different subperiods are identified: 2000-04 (pre-boom), 2005-07 (boom), 2008-12 (crisis), and 2013-16 (post-crisis). These authors estimate regressions in which the dependent variable is the change in a bank's average ROA in one of the subperiods relative to the prior subperiod. For each bank, there thus are three ROA change observations. The ROA change is negatively related to asset growth in the prior period, while it is positively related to he previous period's capitalization rate.[3] These results are confirmed when the authors restrict the sample to observations of changes in ROA from the crisis period to the post-crisis period. Thus, banks that grew less between the crisis period and the post-crisis period were able to maintain their profitability relatively well in the post-crisis period.

In contrast to the above studies, Andersson, Kok, Mirza, Móré and Mosthaf (2018) of the ECB find a positive relation between ROA and the log of assets for a sample of 1,768 euro area banks in the period 2005-2017. These authors' finding of a positive link between ROA and bank size appears to reflect that they use an extensive sample of banks including many small banks.

Taken together, these various studies suggest that there may be a positive association between ROA and bank size for smaller banks, but this relation appears to be negative for the large banks that are directly supervised by the ECB. Overall, the evidence suggests that SSM banks tend to have grown to the point where they can increase ROA by downsizing rather than by growing further.

[2] For studies using worldwide samples of banks, see Demirgüç-Kunt and Huizinga (1999), Demirgüç-Kunt and Huizinga (2010), and Bertay, Demirgüç-Kunt and Huizinga (2013).

[3] Further, the change in ROA is negatively related to the contemporaneous change in the wholesale funding/total funding ratio, to the change in non-interest expense/total assets, and to the change in NPL/gross loans.

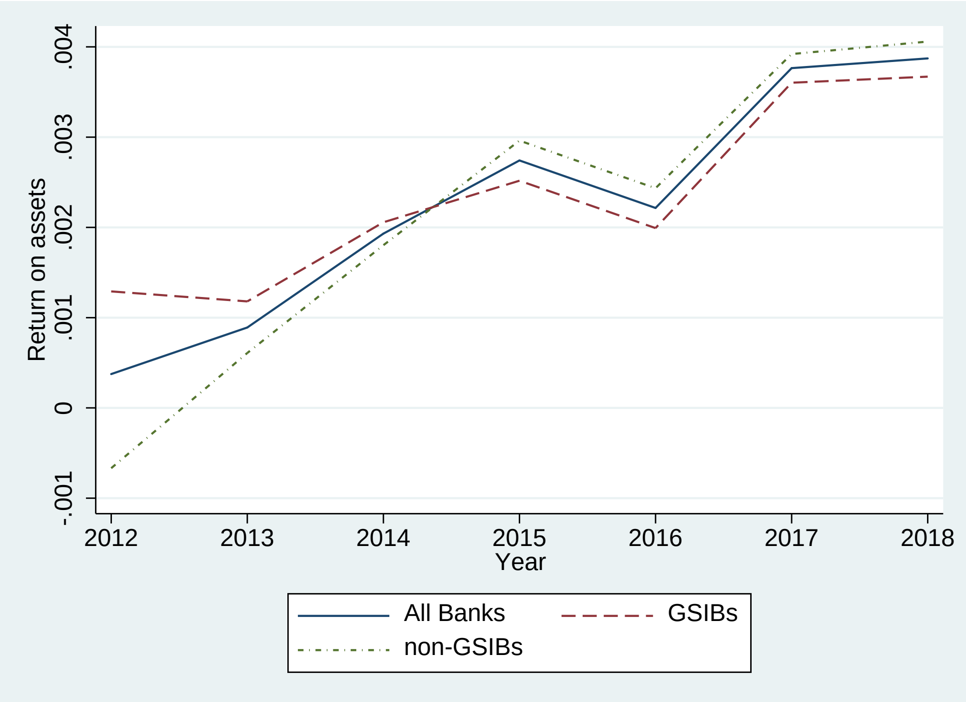
3. RECENT EVIDENCE ON THE PROFITABILITY OF SSM BANKS

In this section, we review recent data on the profitability and stock market valuations of SSM banks (subsection 3.1). In addition, we present some empirical analysis of the determinants of SSM bank profitability using the most recent data (subsection 3.2).

3.1. Data on SSM bank profitability and valuations

Figure 1 shows that the average ROA for all supervised banks rose from 0.038% in 2012 to 0.381% in 2018.[4] When considering GSIBs and non-GSIBs separately, we see that GSIBs have achieved a lower average ROA than non-GISBs since 2015, consistent with a disadvantage of large size in recent years.[5] Figure 2 shows that the average ROE of all SSM banks also rose from 2012 to 2018. GSIBs had a relatively high ROE throughout this period, reflecting their relatively low equity-to-assets ratio.

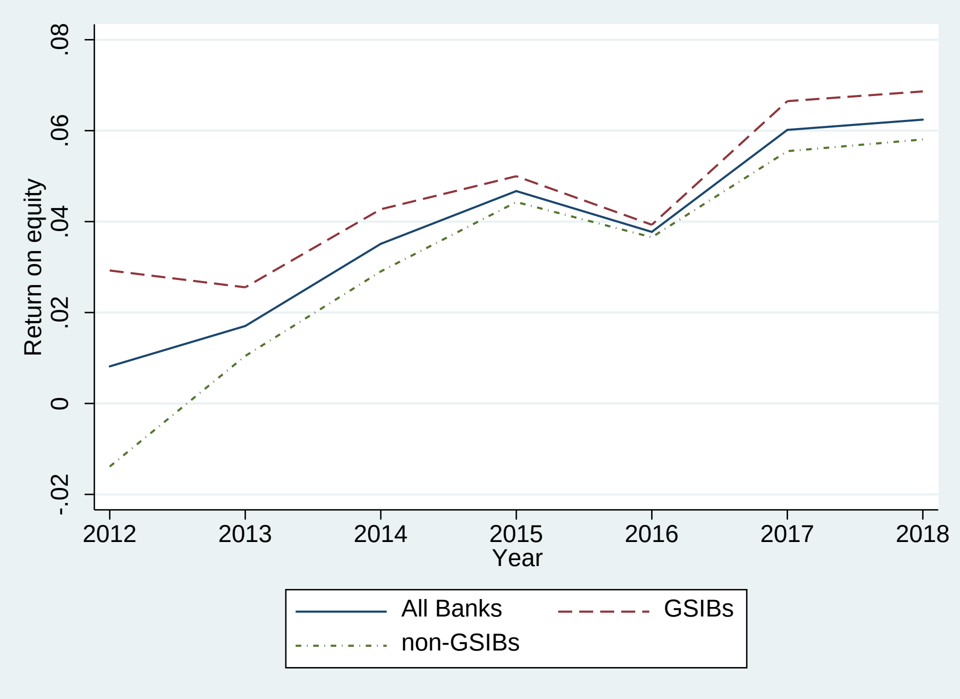
Figure 1: Return on assets



[4] By January 2019, there were 117 directly supervised banks. The profitability figures are averages weighted by bank assets of 113 banks for which data are available.

[5] Data from the ECB (2019c, Table 02.02.3) for the second quarter of 2019 show that the relation between bank size and ROA is not linear. The average ROAs of banks by asset size classification were as follows: less than €30bn, 0.40% ; between €30bn and €100bn, 0.46%; between €100bn and €200bn, 0.27%; more than €200bn, 0.48%. GSIBs had an average ROA of 0.34%, less than the overall average of 0.39% and extrapolating Figure 1.

Figure 2: Return on equity



Changes in ROA can be decomposed into changes in a bank's primary income and expense items using the following income-statement accounting identity:[6]

ROA = Net interest income/assets + Non-interest income/assets –
Overhead/assets – Loan loss provisions/assets

Non-interest income includes, for instance, fee income and trading income. Overhead stands for non-interest expenses. Figures 3-6 show the development of the four main constituent parts of ROA over the 2012-2018 period. To start, Figure 3 shows that the ratio of net interest income to assets on average increased from 1.12% in 2012 to 1.20% in 2018 for all SSM banks. Throughout this period, the GSIBs experienced a relatively low net interest income to assets ratio.[7] Similarly, the ratio of non-interest income to assets on average increased from 0.85% in 2012 to 0.91% in 2018 for all SSM banks (Figure 4), with comparable time trends for GSIBs and non-GSIBs. Next, the ratio of overhead to assets on average went up from 1.31% in 2012 to 1.39% in 2018 for all SSM banks (Figure 5). The GSIBs operated with higher average noninterest costs relative to assets than the non-GSIBs in all years apart from 2016.Thus, the relatively low ROA achieved by the GSIBs in recent years seen in Figure 1 can in part be attributed to relatively higher non-interest costs. Finally, loan loss provisions relative to assets have been on a downward path from 0.48% in 2012 to 0.20% in 2018 (Figure 6). The GSIBs have consistently

[6] A generally small 'Other' category in the income statement representing, for instance, non-operating income, profits (losses) on acquisition or disposal of subsidiaries and net impairment charges on other assets is ignored.

[7] As an alternative to Figure 3, we have plotted the ratio of net interest income to interest-earning assets rather than total assets, yielding a very similar graph.

recorded relatively low loan loss provisions, in part reflecting that GSIBs tend to have lower ratios of gross loans to assets.

Figure 3: Net interest income divided by assets

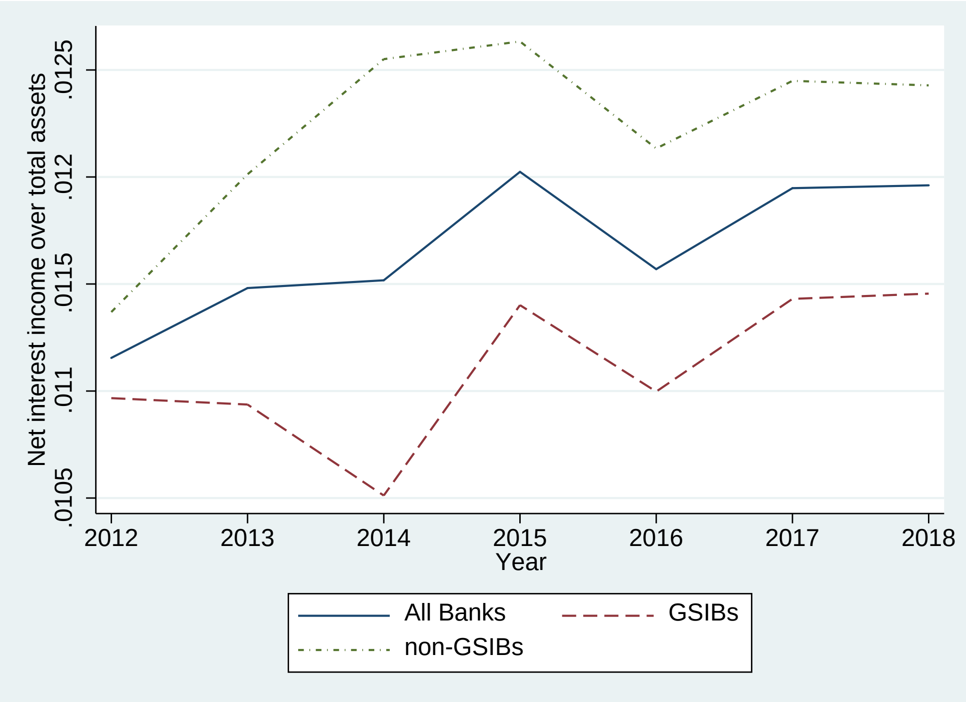


Figure 4: Non-interest income divided by assets

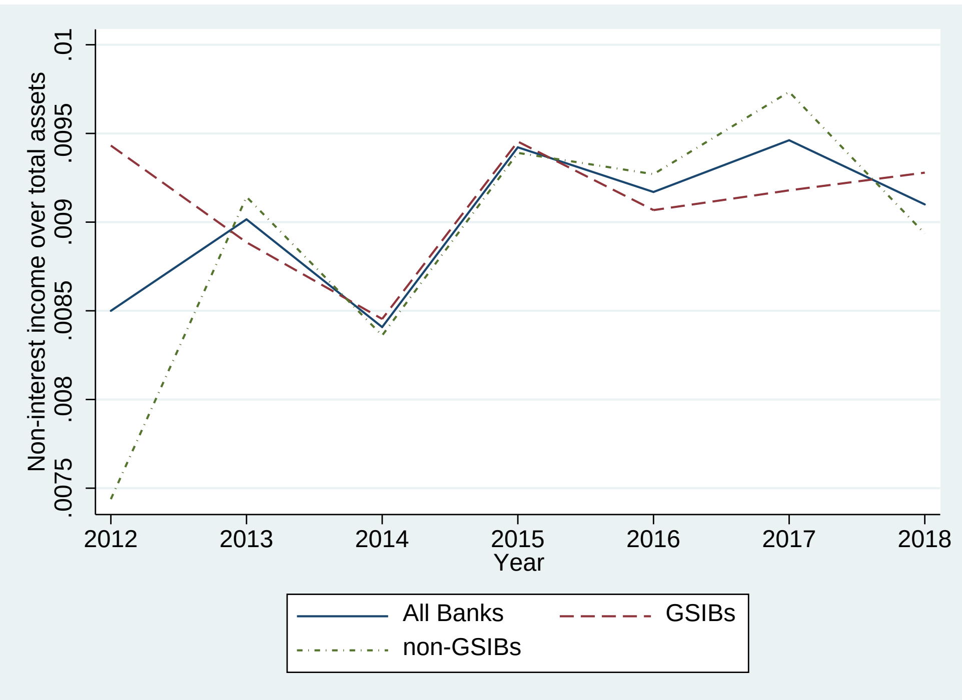


Figure 5: Overhead divided by assets

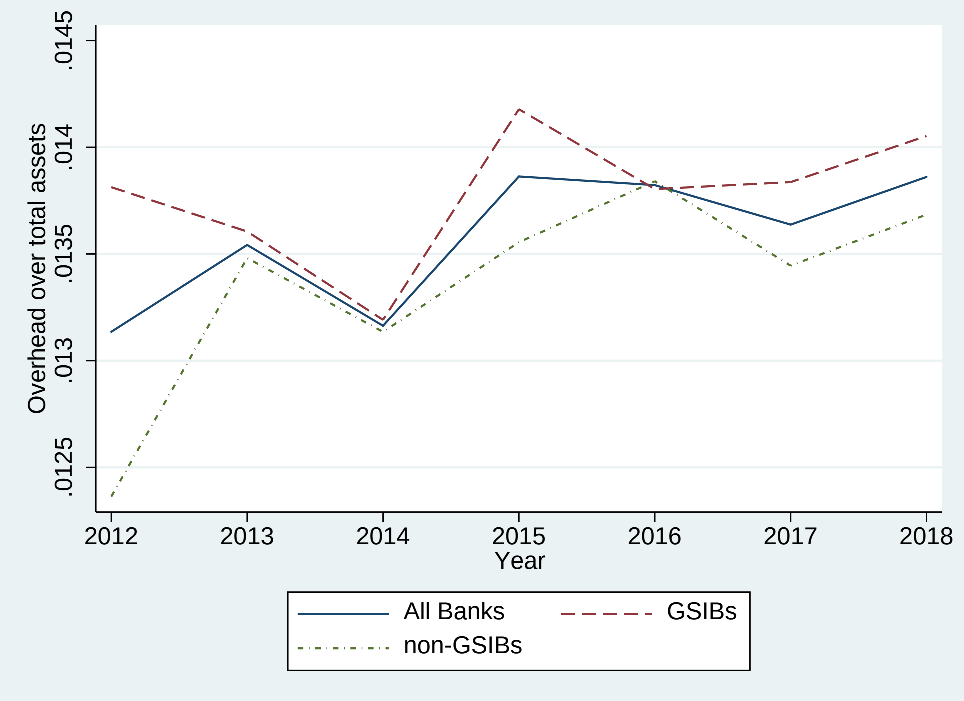
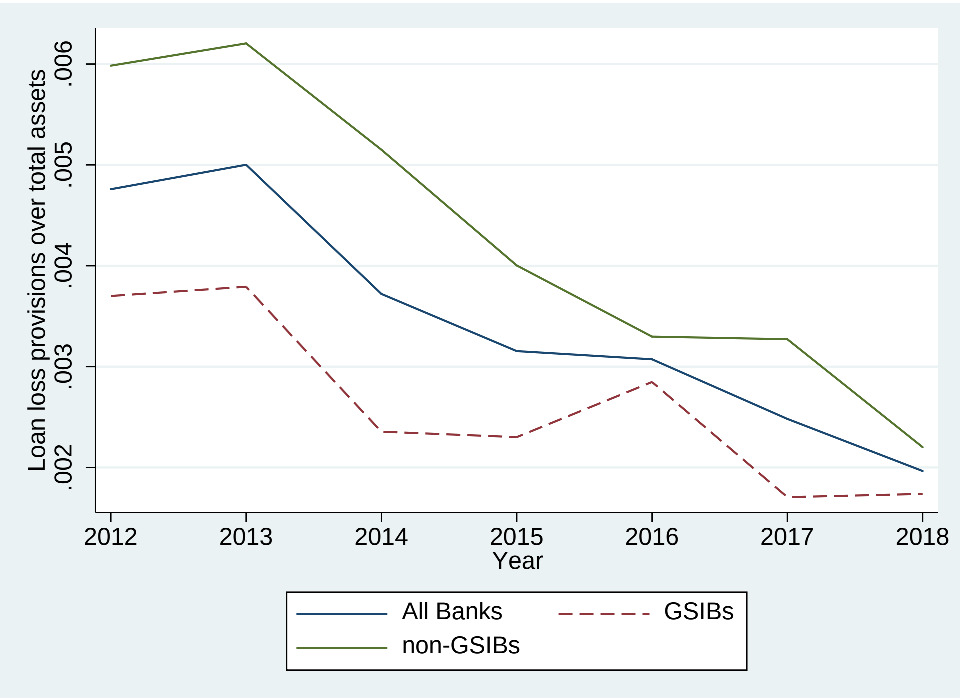


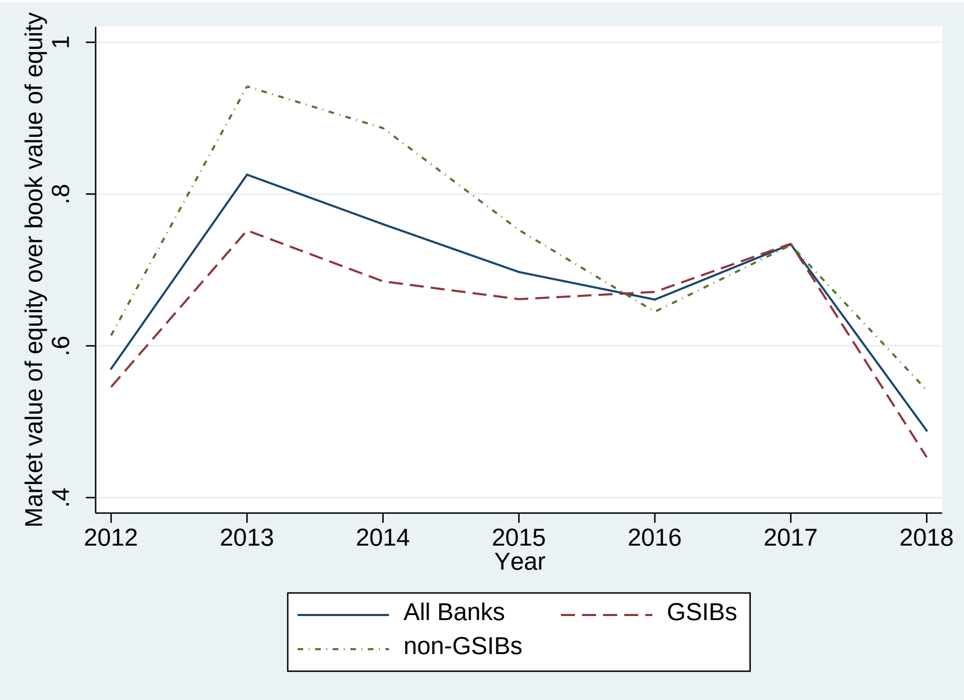
Figure 6: Loan loss provisions divided by assets



Overall, the various figures show that ROA rose over the 2012-2018 period, but still is very low in 2018. Recent improvements in ROA reflect higher net interest income and noninterest income and lower loan loss provisions, but higher costs. The group of GSIBs has achieved relatively low ROAs since 2015, reflecting lower net interest incomes, higher noninterest costs, and lower loan loss provisions. The lower average ROA of GSIBs in recent years suggests that currently there are diseconomies of scale in achieving profitability for the largest banks.

At the end of 2018, stock market data was available for 40 SSM banks. For listed banks, it is possible to construct the ratio of the market value of equity to the book value of equity, which provides information about current profitability as well as expectations of future profitability. As seen in Figure 7, average market-to-book values of listed SSM banks have been below one throughout the 2012-2018 period. At the end of 2018, the average market-to-book value was 48.82% for the overall sample of SSM banks, and it was 45.33% and 54.16% for GSIBs and non-GSIBs, respectively. There are two main possible explanations for market-to-book values less than one.[8] First, book values could be too favorable, i.e., the book values of assets (liabilities) could be overstated (understated). Alternatively, many banks currently have negative franchise values in the sense that there is a negative stock market valuation of future profits relative to the cost of capital. In this second scenario, the continuation of the pertinent banks without some restructuring or even liquidation would make no economic sense for the bank's owners.

Figure 7: Market value of equity divided by book value of equity



The potentially negative current charter values of some SSM banks also implies that these banks' capitalization ratios, after accounting for negative charter values, are lower than their capitalization ratios based only on book values. To illustrate this, we can compare banks' accounting-based leverage ratio, constructed as the ratio of book equity to assets, to a market-based leverage ratio, constructed as the ratio of the market value of equity to assets. The accounting-based leverage ratio has increased from 4.60% in 2012 to 6.20% in 2018 for all listed SSM banks (Figure 8). Specifically, it stood at 5.35% and 6.99% for GSIBs and non-GSIBs in 2018, respectively. In comparison, the average market-based leverage ratio rose much less from 2.72% in 2012 to 2.97% in 2018 for all SSM banks (Figure 9). In 2018, listed GSIBs and non-GSIBs had average market-based leverage ratios of 2.49% and 3.93%, respectively. The apparently very thin market-based capitalization of especially the GSIBs poses a threat to financial stability, as at some point it could endanger these banks' continued access

[8] A bank's market-to-book value also reflects the positive valuation of any future public bailouts (see Vickers, 2019).

to private sources of funding, in the absence of restructurings to eliminate ostensibly negative charter values.

Figure 8: Book value of equity divided by assets

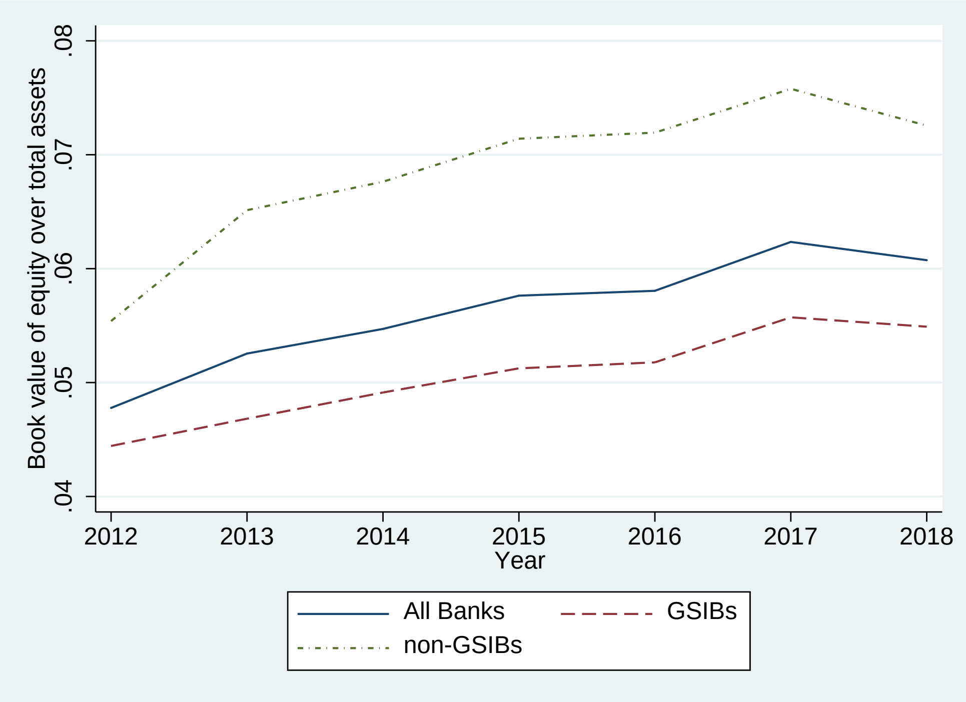
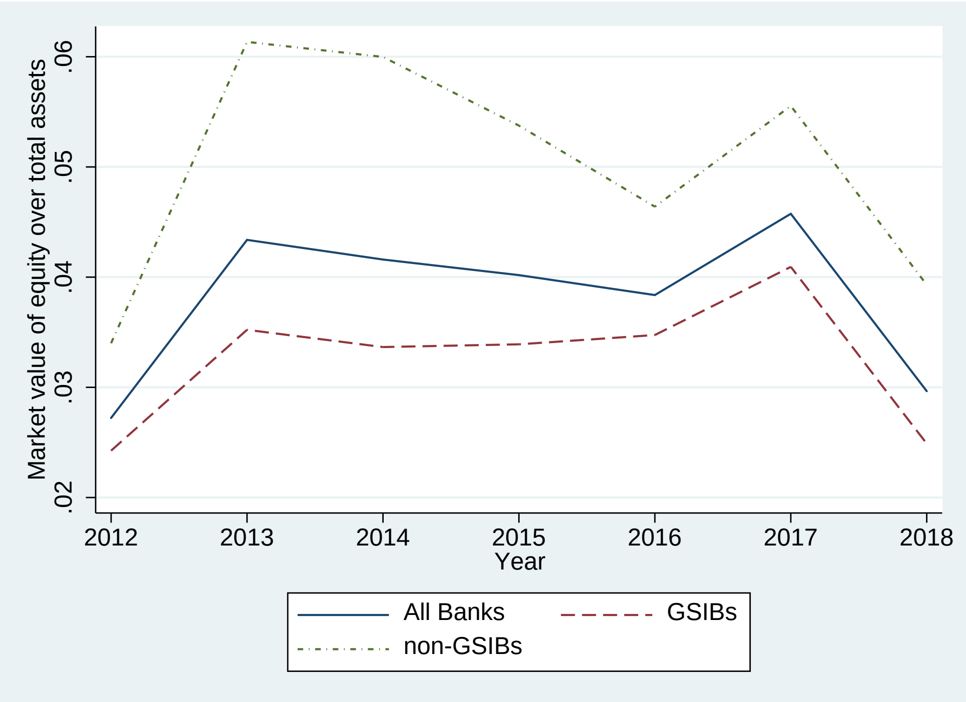


Figure 9: Market value of equity divided by assets



3.2. An update on the determinants of SSM bank profitability

This section presents empirical evidence on the determinants of bank profitability analogously to the studies reviewed in section 2 for the sample of SSM banks using data for the years 2012-2018. In addition to ROA and ROE as profitability measures, we also consider the net interest margin (NIM), constructed as the ratio of net interest income to interest-earning assets. Bank-level variables include Assets, which is the logarithm of assets, and several variables that are constructed using balance sheet and income statement information and that are meant to reflect a bank's recent experience and business orientation. For a list of these variables and their definitions, see Panel A of Table 1. In addition, we include the GDP growth rate variable to reflect the business cycle, and the Top 5 bank concentration share as an index of national bank market concentration. The bank-level explanatory variables are lagged one period to reduce the potential for reverse causation. Panel B of Table 1 reports the results. In regressions 1-4, the bank-level variables are winsorized to reduce the impact of outliers.[9]

In regression 1, ROA is negatively and significantly related to Assets, implying that other things equal banks that increased their assets saw their ROA decline. The estimated coefficient of -0.013 implies that a reduction of assets by 1% increases ROA by 0.013%, compared with an average ROA of 0.39% for SSM banks in the second quarter of 2019.[10] ROA is negatively related to the ratio of gross loans to assets, which suggests that banks that increased their ratio of gross loans to assets (and, hence, reduced their ratio of non-loan assets to total assets) saw their ROA decline. The ratio of non-interest income to operating income is statistically insignificant, indicating that any efforts to shift a bank's business mix towards additional non-interest income did not materially increase ROA. Moreover, ROA is positively and significantly related to GDP growth, confirming the procyclicality of ROA. The ROA regression 2 additionally includes a dummy variable for GSIBs that receives a negative but insignificant coefficient. Thus, GSIBs are estimated to have obtained a relatively low ROA, but this effect is statistically insignificant.[11]

The ROE regression 3 provides results that are qualitatively similar to the ROA regression 1. Specifically, ROE is negatively and significantly related to Assets. Furthermore, in the NIM regression 4 we find a positive and significant effect of the equity-to-assets ratio, as better-capitalized banks achieve higher net interest margins. Results in regressions 5-8 without winsorizing to reduce the impact of outliers are very similar to those in 1-4. Hence, the results generally are not sensitive to outliers.

The main result from Table 1 is that in recent years bank asset growth coincided with a decline in bank profitability as measured by ROA and ROE, and vice versa. Hence, the negative relation between profitability and bank size found for large European banks in earlier studies as reviewed in section 2 has persisted in recent years. This suggests that SSM banks generally cannot pursue growth strategies as a way to return to higher profitability, but rather that they may be able to increase their profitability by reducing the size of their balance sheets.

[9] This means that values in the top 1% and the bottom 1% of the distribution for a variable are replaced by the values at the 99th percentile and the 1st percentile of the distribution, respectively.

[10] The regression analysis assumes that the relation between ROA and bank size is linear after we control for a range of other factors that potentially affect ROA. In practice, there could be a nonlinear relation as suggested by the raw data (see footnote 5). Thus, the estimated relation between ROA and bank size is only indicative.

[11] In this regression, Assets is not statistically significant, but this regression cannot include bank fixed effects, and hence is less well specified than regression 1.

Table 1: The determinants of the profitability of significant institutions during 2012-2018

Panel A. Variable definitions and data sources

Variable name	Description	Source
ROA	Net profits divided by total asset	Bank Focus Orbis
ROE	Net profits divided by equity	Bank Focus Orbis
NIM	Net interest income divided by interest-earning assets	Bank Focus Orbis
Assets	Log of assets in millions of constant euros. Euros are deflated using the GDP deflator	Bank Focus Orbis and OECD
Equity / assets	Equity divided by total assets	Bank Focus Orbis
Gross loans / assets	Gross loans divided by total assets	Bank Focus Orbis
NPL / gross loans	Impaired loans divided by gross loans	Bank Focus Orbis
Short-term funding / assets	Short-term wholesale funding divided by total assets	Bank Focus Orbis
Non-interest income / operating income	Non-interest operating income divided by total operating income	Bank Focus Orbis
Top 5 bank concentration	Share of the 5 largest credit institutions in a country in total assets in percent	ECB Statistical Data Warehouse
GDP growth	Growth rate of GDP at market prices in constant local currency in percent	World Development Indicators
GSIB	Dummy variable indicating that a bank is a GSIB	BIS

Panel B. Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	ROA	ROA	ROE	NIM	ROA	ROA	ROE	NIM
	Winsorized				Non-winsorized			
Assets	-0.013**	0.000	-0.197**	-0.001	-0.013*	0.000	-0.206**	-0.001
	(0.005)	(0.000)	(0.086)	(0.002)	(0.007)	(0.001)	(0.092)	(0.002)
Equity / assets	0.018	0.057***	0.433	0.045***	0.065	0.062**	0.297	0.048***
	(0.057)	(0.014)	(0.876)	(0.013)	(0.094)	(0.025)	(0.984)	(0.013)
Gross loans / assets	-0.044***	-0.001	-0.750***	0.003	-0.052	-0.003	-0.725**	0.004
	(0.016)	(0.006)	(0.263)	(0.005)	(0.037)	(0.009)	(0.334)	(0.005)
NPL / assets	-0.007	-0.031**	0.094	-0.004	-0.025	-0.035	0.080	-0.006
	(0.022)	(0.012)	(0.317)	(0.006)	(0.034)	(0.023)	(0.349)	(0.006)
Short-term funding / assets	-0.003	-0.002	-0.038	-0.000	-0.009	-0.005	-0.101	0.002
	(0.011)	(0.007)	(0.189)	(0.003)	(0.019)	(0.011)	(0.224)	(0.004)
Non-interest income / operating income	-0.002	-0.000	-0.015	-0.003**	-0.004	-0.003	-0.017	-0.001*
	(0.003)	(0.003)	(0.058)	(0.001)	(0.003)	(0.004)	(0.035)	(0.001)
Top 5 bank concentration	-0.000	0.000	-0.000	-0.000	0.000	0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.002)	(0.000)	(0.000)	(0.000)	(0.002)	(0.000)
GDP growth	0.001***	0.001*	0.007**	0.000	0.001**	0.001	0.009**	0.000
	(0.000)	(0.000)	(0.003)	(0.000)	(0.000)	(0.001)	(0.004)	(0.000)
GSIB		-0.001				-0.001		
		(0.001)				(0.002)		
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank fixed effects	Yes	No	Yes	Yes	Yes	No	Yes	Yes
Country fixed effects	No	Yes	No	No	No	Yes	No	No
Observations	567	567	567	565	567	567	567	565
R-squared	0.203	0.390	0.208	0.131	0.179	0.311	0.190	0.138
Number of banks	106	106	106	105	106	106	106	105

Bank-level explanatory variables are lagged one year, and they are winsorized in columns 1-4. Non-interest income / operating income is restricted to be between 0 and 1. Robust standard errors in parentheses. *** denotes significance at 1%, ** denotes significance at 5%, and * denotes significance at 1%

4. THE SUPERVISORY APPROACH TO LOW BANK PROFITABILITY

Subdued bank profitability potentially threatens financial stability, and hence is a concern for bank supervisors. Subsection 4.1 discusses the outcome of the ECB's recent review of bank profitability and business models, including the implications that it sees for bank supervision. Section 4.2 outlines how the ECB could use its existing supervisory powers to formulate a supervisory approach that directly addresses the current overbanking in the euro area by requiring banks with unsustainably low profitability to restructure and downsize.

4.1. The ECB's review of bank profitability and business models

In September 2018, the ECB (2018) published a report on the outcome of its thematic review on profitability and business models. According to the report, the profitability of significant institutions is challenged by high impairments, legacy issues, and pressure on revenues from the economic environment, including low interest rates and high competition. Specifically, the report states that nonperforming loan (NPL) stocks while decreasing remain high, that litigation costs have not totally abated, and that heavy cost structures inherited from the previous expansionary cycle persist despite significant shrinkage. The report further notes that consolidation has taken place in many but not all euro area countries, and that the impact of fintechs remains uncertain.

The report indicates that profitability differs widely across institutions. Moreover, banks that have outperformed relative to their peers over the last years relied on differing business models implying different cost levels. The report similarly points out that banks' approaches to profitability challenges vary, with weaker banks trying to reduce their costs, and stronger banks focusing on generating additional growth. Most banks state digitalization as a strategic priority, but according to the ECB it is difficult to assess what share of information technology (IT) spending helps banks to prepare for the future given that many banks face issues with their legacy IT systems.

The report is largely agnostic on what strategies banks should follow to increase their profitability. All the same, the report states that some banks need to make improvements in their strategic steering of profitability, which refers to management's ability to set a course towards long-term objectives regarding profitability. The report further advocates a bank-specific supervisory approach as banks attempt to increase profitability. Among other things, supervisors need to ensure that banks make well-informed risk-taking decisions, implying that efforts to cut costs do not affect essential risk management and controls.

Recently, Andrea Enria, Chair of the SSM, has given two presentations that shed light on the ECB's views regarding the low profitability of SSM banks. In July 2019, Enria (2019a) gave a presentation entitled 'Is less more? Profitability and consolidation in the European banking sector', followed in September 2019 by a presentation entitled 'Post-crisis repair and the profitability malady' (Enria, 2019b). Enria (2019a), among other things, shows that the banking market in the euro area is less concentrated than in the US, which suggests that there could be too many banks in Europe. Taken together, these two presentations sketch a picture of too many banks and overbanking in the euro area, with additional bank consolidation being a possible remedy.[12] Enria (2019b) proposes a range of actions for banks as

[12] See Andreeva, Grodzicki, Móré, and Reghezza (2019) of the ECB for an evaluation of how consolidation can help to increase the profitability of euro area banks.

well as legislators and authorities to take to deal with the currently insufficient profitability, without providing further details on the ECB's supervisory approach to the low profitability predicament.[13]

4.2. The need for banks with very low profitability to restructure

If the diagnosis of overbanking in the euro area is correct, then there also is a role for the supervisor to take supervisory actions addressing this ill. To do so, the ECB could use its current supervisory procedures to implement a supervisory approach that requires banks with very low profitability to downsize, thereby ameliorating the overbanking. On a yearly basis, the ECB already evaluates the business model sustainability and overall viability of SSM bank as part of the Supervisory Review and Evaluation Process (SREP) (see ECB, 2019b). Specifically, the ECB analyses each bank's forward-looking strategy and financial plans, and assesses business model viability in the short run and the long run.[14] In case of a low sustainability or viability assessment, the ECB can require a bank to maintain additional capital in the form of the Pillar 2 requirement. Besides, the ECB can take supplementary supervisory actions including 'to restrict or limit the business, operations or network of institutions or to request the divestment of activities that pose excessive risks to the soundness of an institution' (Article 16(2)(e) of the SSM Regulation). Bank-level SREP outcomes, including any supervisory actions, are not made public, and hence we do not know whether and to what extent the ECB currently uses its existing supervisory powers to force banks with unsustainably low profits to restructure and downsize.

At any rate, as overbanking seems to be a structural problem, it makes sense for the ECB to formulate a systematic approach to using requirements for a bank to downsize as a supervisory tool. The ECB could, for instance, draw up explicit criteria to identify banks with unsustainably low profitability. These criteria should not only be based on accounting information including profitability measures, but also on bank market valuations if available. For instance, the ECB could presume that a bank's profitability is unsustainably low, if its market-to-book value is less than, say, 0.5 unless there are clear indications to the contrary. Ideally, these criteria will be clear enough to be able to divide SSM banks into two groups depending on whether profitability is deemed to be unsustainably low. In case a bank's profits are considered to be unsustainably low, the bank should be required to restructure with a view to reducing its overall size.[15] A requirement to downsize would tend to increase a bank's ROA, given the negative relation between ROA and bank size among significant institutions.[16] A supervisory approach along these lines could be made part of the annual SREP exercise, or it could be applied in parallel to the existing SREP. In either case, for such a supervisory approach to deliver any value added relative to the existing SREP procedure, there should be clear yes or no pronouncements on whether a bank's profitability is unsustainably low, to be followed by mandatory restructuring in the former case.

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[13] Enria (2019b) proposes the following remedies for banks: i) fast restructuring/disposal of NPLs, ii) cost efficiency, iii) business model viability/strategic steering, and iv) investment in technology/digitalization. Legislators and authorities in turn should: i) introduce a harmonized administrative liquidation framework to smooth exists from the market, ii) complete the banking union with a European deposit insurance scheme, iii) include guarantees and commitments for intragroup support in recovery and resolution plans to create more room for group-wide management of capital and liquidity within the banking union, iv) identify and remove obstacles to cross-border M&As, and v) complete the efforts to establish a liquid and efficient market for securitization with standard contractual features.

[14] The ECB (2019d) lists an assessment of banks' business model sustainability within SREP as a supervisory priority for 2020.

[15] Thus, the ECB could define criteria for the level of a bank's profitability to be 'unsustainable or likely to be unsustainable' (UOLU) analogously to the concept of failing or likely to fail (FOLF) that is applied to determine whether a bank should be resolved (see ECB, 2019e). In case a bank receives an UOLU status, it should be restructured rather than resolved.

[16] Downsizing is more likely to increase a bank's ROA if it scales back its least profitable activities. A caveat is that the relation between ROA and bank size is not necessarily linear, which suggests that a useful additional check would be to compare a bank's ROA to the average ROA of banks that are, say, around 20% smaller to see whether downsizing could increase ROA.

5. CONCLUSION

The profitability of euro area banks has recovered since earlier crisis years, but currently remains at a low level. The subdued profitability appears to be a structural problem caused by overbanking, with too many bank assets chasing too few profitable banking sector opportunities. An inadequate level of bank profitability can have negative implications for financial stability. This makes the currently low bank profitability a supervisory concern. To address the root problem of overbanking, the ECB could use its existing supervisory powers to require SSM banks with unsustainably low profitability to downsize.

To operationalize such a supervisory approach, the ECB should identify banks with unsustainably low profitability based on accounting data but also stock market valuations if available, and then require these banks to restructure with a view to becoming smaller. For instance, the ECB could presume that a bank's current size is too large, if its market-to-book value is less than, say, 0.5 unless there are strong indications to the contrary. The ECB is authorized to require banks to downsize on the basis of Article 16(2) (e) of the SSM Regulation that gives the ECB the supervisory power 'to restrict or limit the business, operations or network of institutions or to request the divestment of activities that pose excessive risks to the soundness of an institution'. Such a supervisory approach could also serve as a catalyst to bring about more consolidation with a view to increasing profitability, triggering subsequent restructuring and effective downsizing.

Two examples of questions about the potential supervisory response to low bank profitability:

Q1. Currently many directly supervised banks have market-to-book values far below one. Do you see a role for low market-to-book values as a signal to undertake supervisory action to require banks to restructure, for instance by reducing the scale of their operations?

Q2. Do you share the view that low bank profitability levels are in part due to overcapacity in the banking sector? If so, what actions can the supervisor take to make banks reduce the overcapacity as quickly as possible?

REFERENCES

- Andersson, M., C. Kok, H. Mirza, C. Móré and J. Mosthaf, 2018, How can euro area banks reach sustainable profitability in the future?, Financial Stability Review, Issue 2, European Central Bank.

- Andreeva, A., M. Grodzicki, C. Móré and A. Reghezza, 2019, Euro area bank profitability: where can consolidation help, Financial Stability Review, Issue 2, European Central Bank.

- Bertay, A, A. Demirgüç-Kunt and H. Huizinga, 2013, Do we need big banks? Evidence on performance, strategy and market discipline, Journal of Financial Intermediation 22, 532-558.

- Demirgüç-Kunt, A. and H. Huizinga, 1999, Determinants of commercial bank interest margins and profitability: some international evidence, World Bank Economic Review 13, 379-408.

- Demirgüç-Kunt, A. and H. Huizinga, 2010, Bank activity and funding strategies: the impact on risk and return, Journal of Financial Economics 98, 626-650.

- Detragiache, E., T. Tressel and R. Turk-Ariss, 2018, Where have all the profits gone? European bank profitability over the financial cycle?, IMF WP/18/99. https://www.imf.org/en/Publications/WP/Issues/2018/05/09/Where-Have-All-the-Profits-Gone-European-Bank-Profitability-Over-the-Financial-Cycle-45865

- Enria, A., 2019a, Is less more? Profitability and consolidation in the European banking sector, European Central Bank. https://www.bankingsupervision.europa.eu/press/speeches/date/2019/html/ssm.sp190704~1f442782ac.en.pdf

- Enria, A., 2019b, Post-crisis repair and the profitability malady, European Central Bank. https://www.bankingsupervision.europa.eu/press/speeches/date/2019/html/ssm.sp190917~ef6d09493e.en.pdf

- European Central Bank, 2018, SSM thematic review on profitability and business models, report on the outcome of the assessment. https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.thematicreviewprofitabilitybusinessmodels_201809.en.pdf

- European Central Bank, 2019a, List of supervised entities as of July 1, 2019. https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.listofsupervisedentities201908.en.pdf?c4c81b4a23b66c8a448d82549f444335

- European Central Bank, 2019b, SSM SREP methodology booklet, 2018 edition to be applied in 2019. https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.srep_methodology_booklet_2018~b0e30ced94.en.pdf

- European Central Bank, 2019c, Supervisory banking statistics, second quarter 2019. https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.supervisorybankingstatistics_second_quarter_2019_201910~6084c9cbd7.en.pdf

- European Central Bank, 2019d, SSM supervisory priorities 2020. https://www.bankingsupervision.europa.eu/banking/priorities/html/ssm.supervisory_priorities2020~b67449d936.en.html

- European Central Bank, 2019e, What happens when a bank is failing or likely to fail? https://www.bankingsupervision.europa.eu/press/publications/newsletter/2018/html/ssm.nl180516_3.en.html

- European Union, 2013, Regulation conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1024&from=en

- International Monetary Fund, 2018, Euro area policies, Financial sector assessment program, technical note – system risk analysis. IMF Country Report No. 18/231. https://www.imf.org/en/Publications/CR/Issues/2018/07/19/Euro-Area-Policies-Financial-Sector-Assessment-Program-Technical-Note-Systemic-Risk-Analysis-46105

- Kok, C., C. Móré and C. Pancaro, 2015, Bank profitability challenges in euro area banks: the role of cyclical and structural factors, Financial Stability Review, Issue 1, European Central Bank, 134-145.

- Storz, M., M. Koettner, R. Setzer and A. Westphal, 2017, Do we want these two to tango? On zombie firms and stressed banks in Europe, ECB Working Paper Series No. 2104. https://www.ecb.europa.eu/pub/pdf/scpwps/ecb.wp2104.en.pdf

- Xu, T., K. Hu and U. Das, 2019, Bank profitability and financial stability, IMF WP/19/5. https://www.imf.org/en/Publications/WP/Issues/2019/01/11/Bank-Profitability-and-Financial-Stability-46470

- Vickers, J., 2019, The case for market-based tests, VoxEU Column. https://voxeu.org/article/case-market-based-stress-tests

This paper examines how the ECB should respond to the currently low profitability of significant banks in the Banking Union. The low profitability appears to be a structural problem caused by overbanking, with too many bank assets chasing too few profitable banking sector opportunities. To address the root problem of overbanking, the ECB should use its existing supervisory powers to require significant banks with unsustainably low profitability to restructure with a view to reducing their overall size.

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